

III. REMARKS

Claims 1-31 are pending in this application. By this Amendment, claim 3 has been amended. Applicants do not acquiesce in the correctness of the rejections and the objection and reserve the right to present specific arguments regarding any rejected claims not specifically addressed. Further, Applicants reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority to the instant application. Reconsideration in view of the following remarks is respectfully requested.

In the Office Action, claims 6, 16 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants gratefully appreciate this indication.

In the Office Action, claim 3 is rejected under 35 U.S.C. §112, second paragraph as being indefinite. Specifically, the Office asserts that “the meaning of ‘L infinity’ is unclear and must be defined in the claims.” (Office Action at page 2). Applicants respectfully disagree because the meaning of L infinity metric is known and widely accepted in the art and the current specification provides/recites the widely accepted meaning of L infinity metric (*see, e.g.,* ¶¶0044-0046). As such, the meaning of L infinity metric in claim 3 is clear. Nonetheless, by this Amendment, claim 3 has been amended to include the meaning of L infinity metric for clarification purposes. Accordingly, Applicants respectfully request withdrawal of the rejection.

By this Amendment, claim 3 has also been revised to correct a typographical error.

In the Office Action, claims 1-2, 4-5, 7-15, 17-24 and 26-31 are rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Ikeda (U.S. Pub. No. 2004/0096092). Applicants respectfully traverse this rejection for the reasons stated below.

With respect to independent claims 1, 12, 21 and 30, Applicants submit that Ikeda does not disclose, *inter alia*, “partitioning an edge of a shape in the IC design into a plurality of intervals[.]” (Claim 1, similarly claimed in claims 12, 21 and 30). The Office alleges that the determining of independent positions and the assigning of a polygon (lattice) and the combining of other polygons (lattice animals) in Ikeda teaches the claimed partitioning. (Office Action at pages 2-3). Applicants respectfully disagree. Ikeda attempts to extract a pattern contour (*see*, e.g., ¶0161) which begins with determining independent positions (*see*, e.g., ¶0164). That is, when Ikeda determines the independent positions and assigns the lattices to the determined independent positions (*see*, e.g., ¶0164 and ¶170), Ikeda does not have/has not extracted a pattern contour in an IC design. Ikeda thus has not determined an edge of a shape. As such, Ikeda does not partition an edge of a shape into a plurality of intervals. In addition, the assignment of the lattice to the independent positions and the combination of the lattice animals in Ikeda does not teach “assigning at least one dimension to each interval” because Ikeda does not partition an edge into intervals. In view of the foregoing, Applicants respectfully request withdrawal of the rejection.

The dependent claims are believed allowable for the same reasons stated above, as well as for their own additional features. For example, with respect to claims 2, 13 and 22, Ikeda does not disclose, *inter alia*, “partitioning the edge based on the core Voronoi diagram.” (Claim 2, similarly claimed in claims 13 and 22). Ikeda discloses preparing a Voronoi diagram. (*See*, e.g., FIG. 11, *see also* ¶181.) However, Ikeda does not partition an edge based on the Voronoi diagram, but uses the Voronoi diagram to extract a pattern contour. Ikeda prepares the Voronoi diagram as a result of the independent position determination, lattice assignment and lattice animal combination which the office uses to disclose partitioning of an edge into a plurality of intervals

and “assigning at least one dimension to each interval” (claim 1). That is, even in the assertion of the Office, the Voronoi diagram of Ikeda is not a basis of the asserted “partitioning,” but is a result of the “partitioning.” In addition, the current invention claims a “core Voronoi diagram”, which is different than the “Voronoi diagram” in Ikeda. (Please compare, e.g., FIG. 8A of the claimed invention, the thicker line illustrating the core, with FIG. 11 of Ikeda.) In the claimed invention, “a ‘core’ (indicated by the thicker line) of a Voronoi diagram is the portion remaining after excluding ‘uninteresting portions.’” (§0049). In view of the foregoing, Ikeda does not disclose claims 2, 13 and 22.

In light of the above, Applicants respectfully submit that all claims are in condition for allowance. Should the Examiner require anything further to place the application in better condition for allowance, the Examiner is invited to contact Applicants’ undersigned representative at the number listed below.

Respectfully submitted,

/Spencer K. Warnick/

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